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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,680	12/11/2001	Vijay Khawshe	5298-07400 CD01161	3210

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EXAMINER

LUU, AN T

ART UNIT PAPER NUMBER

2816

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,680

Applicant(s)

KHAWSHE, VIJAY

Examiner

An T. Luu

Art Unit

2816

-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☐ Claim(s) 7, 9-11 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7-11 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 appears to be misdescriptive since the value of reference voltage VREF is shown in figure 3 to be independent from the circuit. In other words, VREF can be pre-set a certain level and it requires no means related to the circuit for maintain at any particular level.

Claims 9-11 appears to be incomplete since a circuit, comprising a comparator and a pull down transistor configured as recited, are not capable of changing the pulse width and duty cycle of the output signal; and chopping and removing portions of the output signal below the reference voltage.

Limitation “maintained at approximately a *midline voltage* between the positive and negative voltage peaks of the output” (emphasis added) of claim 13 appears to be misdescriptive since the output signal can not drop below the reference voltage level.

Claim 8 and 14-15 are rejected for being dependent upon the rejected claims noted above.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7 and 13-14, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by the Schultz et al reference (U.S. Patent 5,164,659).

Schultz discloses in figure 1 an apparatus comprising a comparator 22 to compare voltage of the output signal (node 16) to the reference voltage VREF; a pull down transistor 24 coupled to an output of the comparator for fixing a minimum voltage of the output signal to a voltage approximately equal to the reference voltage as required by claim 7. It is noted that limitation “pulse width of the output signal varies in proportion to changes in the reference voltage and the comparator comprises a slew rate and/or gain which is predetermined to preclude a voltage of the output signal from being less than the reference voltage” is seen as a result of the structure recited in claim.

As to claim 13, it is inherent that the source-to-drain current path is maintained when the output signal is approximately higher or equal to the reference voltage since the pull down transistor is ON when voltage at positive terminal is approximately higher or equal to the voltage at negative terminal of the comparator.

As to claim 14, limitation “an output voltage from the comparator will not go below a threshold voltage of the pull down transistor” has the same meaning as “comparator comprises a slew rate and/or gain which is predetermined to preclude a voltage of the output signal from being less than the reference voltage” as noted above. Therefore, it is rejected for the same reason noted above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Schultz et al reference (U.S. Patent 6,164,659).

Schultz does not disclose an optical signal transmitter coupled to receive the output signal as required by claim. However, it is obvious that the apparatus recited in claim 7 is intended to be employed in various application. And the output of the apparatus is seen as an intermediate step which provides a suitable signal for further processing. Therefore, it would have been obvious to one skilled in the art to provide the output of the apparatus to an optical signal transmitter or any other electrical device, for that matter, which requires a stable input signal. And any particular electrical device connected to the output of the apparatus is seen as "intended use" since it does not change the operational characteristics of the apparatus.

Allowable Subject Matter

7. Claims 1-5 are allowed.

8. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose, among other things, a duty cycle that varies in proportion to changes in the reference voltage.

Conclusion

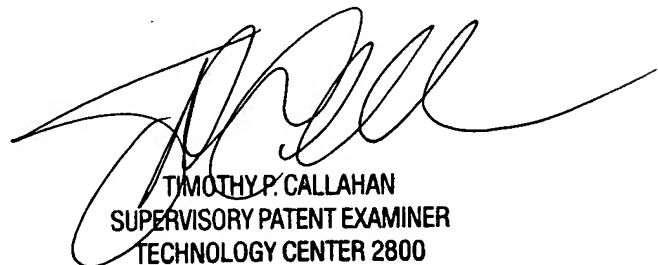
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 703-308-4922. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

An T. Luu
9-24-2003 *ATL*


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800